

**Listing and Amendments to the Claims**

This listing of claims will replace the claims that were published in the PCT Application and annexed to the International Preliminary Report on Patentability:

1. (currently amended) Optical motor adapted to receive a light beam of variable colour along an illumination axis, wherein the optical motor comprises in g :

- a matrix imager {16}, each pixel of which reflects the light beam with a polarization that depends on the image to be generated in the received colour, the reflected beam being said modulated beam ; and
- a first polarization splitter {18} adapted to transmit a polarization of the light beam of variable colour in a first direction towards said matrix imager and to transmit, at least partially, said modulated beam in a second direction ;

characterized by :

- a second polarization splitter {20}-adapted to transmit the said polarization of the light beam of variable colour in a third direction towards the first polarisation splitter, the second polarization splitter being adjacent to the first polarization splitter, without any polarization element separating the first and second polarization splitters ;

the optical motor being adapted to transmit a polarised modulated beam.

2. (currently amended) Optical motor according to Claim 1, wherein characterized in that the first and second polarization splitters comprise each a splitting surface and in that the first and second polarization splitters are positioned so that

- the polarization of the light beam of variable colour, which is transmitted in the third direction crosses the splitting surface {21} of the second polarization splitter {20}
- the polarization of the light beam of variable colour, which is transmitted in the first direction crosses the splitting surface {19} of the first polarization splitter {18}, and the polarization of the modulated beam, which is transmitted

in the second direction is reflected by the splitting surface (19) of the first polarization splitter (18).

3. (currently amended) Optical motor according to ~~one of~~ claims 1 and 2, wherein in which the splitting surface (19) of the first polarization splitter (18) makes with the light beam an angle of a defined value in a first plane containing the light beam and in which the splitting surface (21) of the second polarization splitter (20) forms with the light beam an angle having an opposite value to the defined value in a second plane containing the light beam and parallel to the first plane.

4. (currently amended) Optical motor according to Claim 3, wherein in which the defined value is equal to 45°.

5. (currently amended) Display device comprising :

- an illumination system that generates a light beam of variable colour along an illumination axis ;
- ~~an~~ the optical motor according to ~~one of the claims 1 to 4~~, being adapted to receive the light beam from the illumination system, the optical motor comprising:

- a matrix imager, each pixel of which reflects the light beam with a polarization that depends on the image to be generated in the received colour, the reflected beam being said modulated beam ; and
  - a first polarization splitter adapted to transmit a polarization of the light beam of variable colour in a first direction towards said matrix imager and to transmit, at least partially, said modulated beam in a second direction ;
  - a second polarization splitter adapted to transmit the said polarization of the light beam of variable colour in a third direction towards the first polarization splitter, the second polarization splitter being adjacent to the first polarization splitter, without any polarization element separating the first and second polarization splitters ;

the modulated beam being polarised at the output of the display device.

6. (currently amended) Display device according to Claim 5, wherein in which the first polarization splitter (18) and the second polarization splitter (20) are arranged symmetrically with respect to a plane (PP') perpendicular to the illumination axis.

7. (currently amended) Display device according to ~~one of~~ Claims 5 to 6, wherein in which the splitting surface (19) of the first polarization splitter (18) and the splitting surface (21) of the second polarization splitter (20) make between them an angle having an absolute value of about 90°.

8. (currently amended) Display device according to ~~one of~~ Claims 5 to 7, wherein in which the matrix imager (16) lies on the illumination axis.

9. (currently amended) Display device according to ~~one of~~ Claims 5 to 8, wherein in which the first polarization splitter (18) at least partly transmits said modulated beam in the direction of imaging means (12) for display on a screen (14).

10. (currently amended) Display device according to ~~one of~~ Claims 5 to 9, wherein in which the colour of the light beam varies periodically among a plurality of colours.

11. (currently amended) Display device according to ~~one of~~ Claims 5 to 10, wherein in which the illumination means comprise at least two colour filters (7), the light beam passing periodically through each colour filter (7).

12. (currently amended) Display device according to either of Claims 5 to 11, wherein in which the light beam is of three different colours successively in each period.

13. (currently amended) Display device according to either of Claims 5 to 12, wherein in which the light beam is of different colours, forming then sequential colored beams, each colored beam following the same path in the optical motor and having the same polarization.